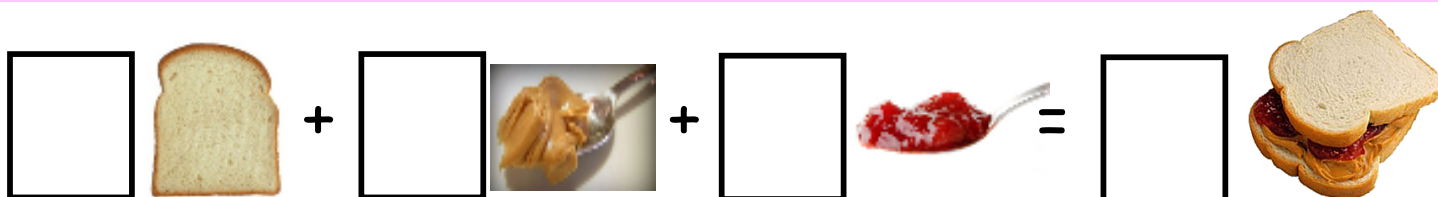
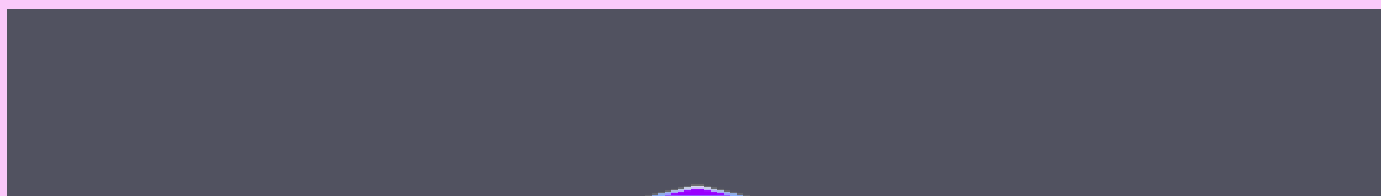


# Making Peanut Butter Sandwiches

We'll assume the perfect PBJ sandwich needs 2 spoons of PB and 1 spoon of jelly. How much of each ingredient to make enough for the class? Write beside each ingredient how much you would need of each.

Example: If 9 people



## Balancing Chemical Equations

A simple recipe is similar to balancing a chemical equation.

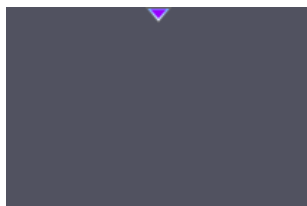
How to balance a chemical equation:

1) All chemical formulas must be written correctly first

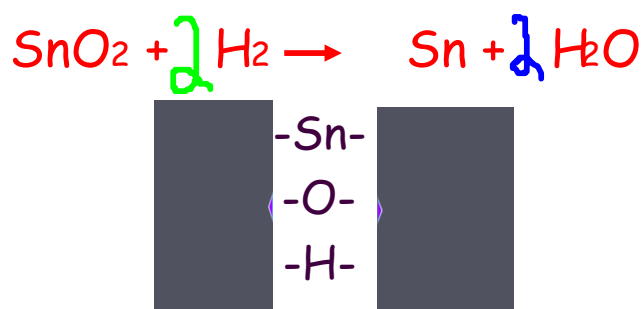
Tin (IV) oxide reacts with hydrogen to produce tin and water



2) Look at the entire equation and see which elements are not equal. Make a "shopping list" to help track elements.

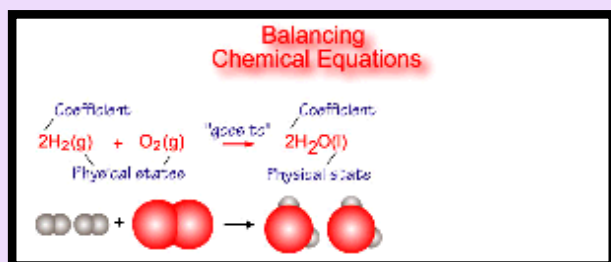


3) Use coefficients to balance individual chemical compounds that aren't equal



4) Some equations require additional steps in adding coefficients in order to balance. Keep track of total number of atoms to equalize both reactants and products.

## Let's Practice









## Volunteers Needed!

Record the equation and balance on whiteboards or your paper if not a volunteer

**Jefferson Lab**  
HOME | SEARCH | CONTACT US

Working and Learning Together  
**Science Education**

 Home
 Teacher Resources
 Elemental Act
 Career & Training
 Programs & Events
 Contact Us

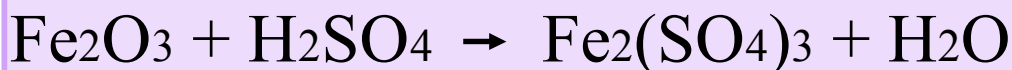
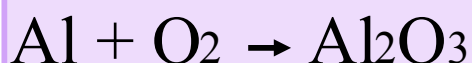
## Balancing Act!

Welcome to It's Elemental - Balancing Act!

Welcome to It's Elemental - Balancing Act! The computer will give you a number of incomplete chemical equations. Balance the chemical equations by selecting coefficients from the pull-down menus. Once you think the equation is balanced, press the "Check my answer!" button. Have fun and good luck!

## Assessment Problems

Complete on whiteboards or paper. Show when completed.





Assessment Answers-Drag Here to Check

